ABSTRACT

Provided are compositions comprising functionalized nanocrystal-labeled nucleobases that are produced by operably linking a nucleobase to a functionalized nanocrystal via reactive functionalities. Also provided are kits comprising a plurality of species of functionalized nanocrystal-labeled nucleobases. The functionalized nanocrystal-labeled nucleobases may be added to a strand synthesis reaction under suitable conditions to be incorporated into one or more strands synthesized in the reaction.